

Air Quality Update

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HEALTH RISK: NEW METHODOLOGY AND POLICY CHANGES AHEAD

California has adopted a new Health Risk Assessment (HRA) methodology that will have broad-reaching consequences for a wide range of regulatory agencies, as well as the regulated community. The methodology is detailed in the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual, adopted by California's Scientific Review Panel on Toxic Air Contaminants (SRP) at their public meeting on November 12, 2014. The Guidance Manual culminates the science presented in three preceding technical support documents (TSDs) released by OEHHA for the Hot Spots Program since 2008 and reflects advances in the field of risk assessment, along with explicit consideration of infants and children. The California Air Resources Board (CARB) intends to release the finalized Guidance Manual, along with a fully updated companion version of the Hotspots Analysis and Reporting Program (HARP) software, in the first quarter of 2015.

The new method continues to use a tiered approach, which provides flexibility to risk assessors as well as regulatory agencies to implement the new method, but incorporates a more substantive consideration of sensitivities based on site-specific information and age-related exposures. The result is a methodology that generally increases the overall estimates for cancer risk by approximately 200-300% or a factor of 2 to 3 times. So, if previous risk was estimated to be 4 in a million, it could rise up to 12 in a million with the same

emissions. Although developed for the Air Toxics "Hot Spots" Program (AB 2588), the Guidance Manual will have a broader influence, as it affects other regulatory programs that use health risk assessment for policy and regulatory determinations, such as air permitting, the California Environmental Quality Act (CEQA), and Proposition 65.

Risk management policy, set by various state and local agencies, will direct implementation of the new Guidance Manual and define the appropriate use of the HRA methods. In the absence of a moderating policy, the regulated community, lead agencies, and the regulators could experience a large increase of new public notifications, risk reduction requirements, significant public health impacts under CEQA, and equipment across the state that may be difficult to permit.

CARB and other organizations, such as the California Air Pollution Control Officers Association (CAPCOA), are reviewing statewide risk management policies and may propose changes to implementation of risk management statewide. In addition, local agencies are reviewing their policies and may proceed with modifications to those policies. These actions should afford an opportunity for the public to participate in directing implementation of the new Guidance Manual.

However the risk management policies may change, everyone involved with environmental management should have a heightened sensitivity to the air toxics data they submit to agencies for individual devices, facility-wide inventories, and planned development projects, because these emissions may be among the first to

be evaluated for health risk impacts using the new methodology.

Air Quality Tip

The South Coast Air Quality Management District (SCAQMD) issues numerous Notices of Violation (NOVs) to facilities for inadequate or incomplete emergency generator operating logs. This is largely an avoidable situation. Facility staff in charge of SCAQMD compliance should inspect and review these operating logs on a routine basis, preferably every month, to ensure the mechanics and electricians are logging all required data.

Upcoming Training Offered by Yorke Engineering

- South Coast Air Quality Regulations, Permitting, and Compliance Seminar: April 7 – April 8, 2015
<http://www.yorkeengr.com/AirQualityClasses.htm>
- UCI Extension Air Quality Permitting and Compliance – Spring Quarter
<http://unex.uci.edu/courses>
(see Environmental Management)

Upcoming Due Dates for 2015

- SCAQMD Rule 1110.2 Quarterly 1/15
- SCAQMD AER 6/4
- USEPA GHG Report 3/31
- CARB GHG >25K Metric Tons..... 4/10
- CARB GHG 10-25K Metric Tons and All Electric Retailers 6/1
- CARB GHG SF6 Switchgear 6/1
- CARB On-Road Heavy-Duty DV* Reporting for Flexibility Options..... 1/31
- CARB In-Use Off-Road DV* Annual Reporting for Large Fleets..... 3/1
- CARB PERP Equipment Units Annual Report 3/1
- RECLAIM Quarterly (Cycle 2)..... 1/30
- RECLAIM APEP (Cycle 1) 3/1
- Title V – 500-SAM 2/28
- Title V – 500-ACC 3/1 (Except RECLAIM Cycle 2 8/29)
- Title V – Application for Permit Renewal – Due 180 Days Prior to Permit Expiration

*Diesel Vehicle

SCAQMD ADOPTED RULE CHANGES

For full details on changes below, go to: <http://www.aqmd.gov/home/regulations/rules/recent-actions>

■ Rule 1153.1: Emissions of Oxides of Nitrogen from Commercial Food Ovens

SCAQMD Rule 1153.1 is a newly adopted rule that sets forth combustion emission standards for oxides of nitrogen (NO_x) and carbon monoxide (CO) emissions from commercial food ovens. The rule also sets forth requirements for proper equipment nameplates, equipment maintenance, source testing, certification standards, alternative compliance plans, and recordkeeping. Rule 1153.1 was specifically developed by the SCAQMD in response to food producers' concerns related to Rule 1147: *NO_x Reductions from Miscellaneous Sources*. This rule specified problematic NO_x limits for certain types of food ovens. Numerous compliance issues, along with testimony from equipment manufacturers, eventually led the SCAQMD to re-evaluate the emission limits for commercial food ovens. This ultimately culminated in the adoption of Rule 1153.1, which provides specific achievable NO_x and CO limits for food production equipment.

Rule 1153.1 requires specific emission limits and also some general requirements that should be followed. For example, a permanent nameplate with the equipment make, model, and rating (MMBtu/hr) must be installed on each oven [Rule 1153.1(c)(4)]. In addition, Rule 1153.1(c)(6), requires each equipment owner/operator to perform combustion system maintenance in accordance with the burner manufacturer's specifications and recommendations. Records of the maintenance, along with the manufacturer's specifications and recommendations, must be maintained on-site for at least 3 years and made available for SCAQMD inspection.

Rule 1153.1 allows an extended compliance timeline for facilities that operate three or more in-use units with compliance dates in the same year or 2 consecutive years. In order to take advantage of this extended timeline, facilities must submit an "Alternative Compliance Plan" in accordance with Rule 1153.1(C)(10) and pay the required SCAQMD submittal fees.

Regarding the NO_x limits, for "in-use" ovens that operate > 500°F, the NO_x limit is 60 ppm (@ 3% O₂) or 0.073 pounds per million Btu. For ovens that operate < 500°F, the NO_x limit is 40 ppm (@ 3% O₂) or 0.042 pounds per million Btu. The CO emission limit is 800 ppm (@ 3% O₂) for all in-use ovens across all operating temperatures.

An "in-use" unit means any applicable commercial food oven that was in operation prior to November 7, 2014, that is required to operate with an SCAQMD permit.

As far as exemptions and compliance options are concerned, Rule 1153.1(g) provides several important exemptions and 1153.1(h) provides a mitigation fee compliance option. Noteworthy exemptions specified by the rule include charbroilers, fryers, and emissions control systems. Compliance options provided by Rule 1153.1(h) include an elective 3-year delay in the applicable compliance date by paying an "emissions mitigation" fee, along with the filing of the required SCAQMD documentation, including a cover letter summarizing the request, a Form 400-A, and summary and payment of the mitigation fees. For a typical facility that operates one oven rated at 5.0 MMBtu/hr, 8 hours per

day, 5 days per week, 52 weeks per year, with an applicable Rule 1153.1 compliance limit of 40 ppm NO_x (@ 3% O₂), the emissions mitigation fee would be approximately \$36,642 per year.

Overall, Rule 1153.1 will provide a more realistic set of emission limits and compliance requirements compared to Rule 1147.

NEW SCAQMD ANNUAL EMISSIONS REPORT (AER) SOFTWARE REMINDER

The new SCAQMD AER software is mandatory for the 2014 reporting year (it was optional for 2013). The AER deadline has been delayed from March 1st to June 4, 2015. The new software has a number of changes, including a more complex user interface, a complete listing of all permitted devices, more facility-specific information, data requirements for specific fuel types, and a reorganization of the toxic emissions data. These are just a few of many changes in the software. Facilities that are required to submit AERs include:

- Facilities that received an AER notification from the SCAQMD;
- Facilities that have estimated annual emissions of 4 or more tons of NO_x, SO_x, or particulate matter (PM), or emissions of 100 tons per year or more of CO, or emissions of specific toxic air contaminants and ozone-depleting compounds (TACs/ODCs) in excess of the threshold listed in Rule 301; and
- Facilities subject to the AB 2588 Program for reporting quadrennial updates.

Yorke Engineering, LLC specializes in air quality and environmental consulting for stationary and mobile sources, including dispersion modeling, health risk assessments, permitting, emission inventories, air quality compliance systems, etc. Yorke Engineering has assisted over 400 customers, including a wide variety of industrial facilities and government organizations throughout California.